

Please substitute the following amended claims for the pending claims having the same numbers:

15. (Amended) A method of selectively performing homologous recombination with a particular nucleotide sequence of a Bacterial or Bacteriophage-Derived Artificial Chromosome (BBPAC) that is contained in a recombination deficient host cell comprising introducing a conditional replication shuttle vector into a recombination deficient host cell and therein enabling homologous recombination in the host cell via the transient expression of a recombination protein in the host cell;

wherein the host cell comprises a Bacterial or Bacteriophage-Derived Artificial Chromosome (BBPAC) which contains the particular nucleotide sequence; wherein the conditional replication shuttle vector encodes a recombination protein that is transiently expressed by the host cell; wherein the conditional replication shuttle vector contains homologous nucleic acid sequences capable of selectively integrating into the particular nucleotide sequence when the recombination protein is expressed; and wherein the expressed recombination protein effectuates recombination of the shuttle vector and the Bacterial or Bacteriophage-Derived Artificial Chromosome (BBPAC).

16. (Amended) A method of selectively modifying a particular nucleotide sequence of a Bacterial or Bacteriophage-Derived Artificial Chromosome (BBPAC) that is contained in a recombination deficient host cell comprising:

(a) introducing a conditional replication shuttle vector into a recombination deficient host cell; wherein the host cell comprises a Bacterial or Bacteriophage-Derived Artificial Chromosome (BBPAC) that comprises a gene of interest which contains the particular nucleotide sequence; wherein the conditional replication shuttle vector encodes a recombination protein that is expressed by the host cell and permits homologous recombination to occur in the host cell; wherein the conditional replication shuttle vector contains homologous nucleic acid sequences capable of selectively integrating into the particular nucleotide sequence when the recombination protein is expressed forming a co-integrate; wherein the nucleic acid sequences that selectively integrate into the particular nucleotide sequence and the nucleic acid encoding the recombination protein are

positioned on the conditional replication shuttle vector such that upon resolution of the co-integrate, the nucleic acid encoding the recombination protein remains with the conditional replication shuttle vector; and wherein the expressed recombination protein effectuates recombination of the shuttle vector and the Bacterial or Bacteriophage-Derived Artificial Chromosome (BBPAC); and

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(b) growing the host cell under conditions in which the conditional replication shuttle vector cannot replicate, therein diluting out the conditional replication shuttle vector encoding the recombination protein, and thereby preventing further recombination events in the recombination deficient cells.

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18. (Amended) The method of Claim 16 wherein the conditional replication shuttle vector cannot replicate in the host cell because the conditional replication shuttle vector requires a particular protein for replication and neither the host cell nor the Bacterial or Bacteriophage-Derived Artificial Chromosome (BBPAC) encode the particular protein.

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20. (Amended) The method of Claim 16 wherein the BBPAC is a BAC or a PAC.